## Model (1)

Science

1. The liquid element whose molecule contains one atom is ....
   a) Neon   b) Mercury   c) Bromine   d) Oxygen

2. The third energy level M saturated .... electrons.
   a) 6   b) 8   c) 18   d) 32

3. The smallest part of the matter which can exist freely is ....
   a) atom   b) compound   c) element   d) molecule

4. The work done during the motion of an object is .... energy.
   a) kinetic   b) potential   c) mechanical   d) electrical

5. The heat transfers by radiation occurs in ....
   a) liquids only   b) gases only
   c) materialistic and non-materialistic media   d) metals only

6. The number of front fingers of an hawk is ....
   a) 1   b) 2   c) 3   d) 4

Maths

1) If $X = \frac{2}{7}$, and $Y = 7$, then $XY = $ .... (7 , 9 , 14 , 2)

2) If $(x - 3)^2 = x^2 - 6x + m$, then $m = $ ...... (3 , 6 , 9 , 12)

3) The highest common factor of the two algebraic terms $30x^2y^2$, $5xy$ is ....
   ($5xy^2$, $5xy$, $15x^2y^3$, $75x^3y^5$)

4) The mode of 4,3,7,5 and 5, is .... (3 , 4 , 5 , 7)

5) If $m(\angle A) + m(\angle B) = 180°$, then angle A and angle B are ....
   (equal in measure , complementary , adjacent , supplementary)

6) If $\triangle ABC \equiv \triangle XYZ$, then ..... ($XY = AB$, $AC = YZ$, $m(\angle B) = m(\angle Y)$, $XZ = AB$)

7) If $(\angle A) \equiv (\angle B)$, $m(\angle A) = 30°$, then $m(Reflex\angle B) = $ ......° (60 , 150 , 250 , 330)

8) In the opposite figure : $\overrightarrow{CD} \parallel \overleftrightarrow{BA}$, $m(\angle DCB) = 55°$ and
   $m(\angle HBA) = 32°$, then $m(\angle HBC) = $ ......°

   (32 , 23 , 13 , 24)
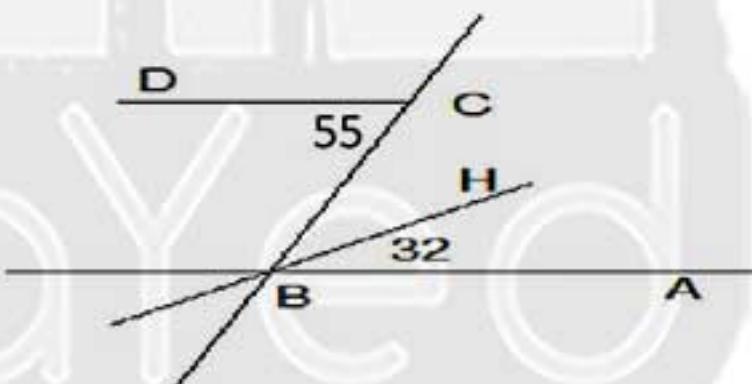
Model (2)

Science

1. The number of atoms in hydrogen chloride compound is ....
   a) 1   b) 2   c) 3   d) 4

2. In sodium atom 11Na, the electronic configuration will be in ....
   a) one energy level   b) two energy levels
   c) three energy levels   d) four energy levels

3. The product of combination of two elements or more different of elements with constant weight ratio is ....
   a) atom   b) compound   c) element   d) molecule

4. The stored energy inside a body due to a work done on it is called ....
   a) motion   b) potential   c) mechanical   d) electrical

5. In solar heaters, the solar energy is converted to .... energy
   a) optical   b) electrical   c) thermal   d) kinetic

6. Which of the following rodents undergoes aestivation?........................
   a) Squirrel   b) rat   c) jerboa   d) desert snail

Maths

1) The angle whose measure 70^0 complements an angle of measure ....^{0}
   (20 , 110 , 70 , 140)

2) If $\triangle ABC \equiv \triangle XYZ$, If m($\angle A$)+ m($\angle Y$) =100° ,then m($\angle C$) = ...^{0}
   (80 , 100 , 40 , 10)

3) If m($\angle B$) $\equiv$ m($\angle C$) , where $\angle B$, $\angle C$ are supplementary , then m($\angle B$) = ...^{0}
   (180 , 90 , 45 , 30)

4) In the opposite figure :
   $\vec{CD}$ // $\vec{BA}$ m($\angle ABC$) = 40^0 , then m($\angle BCD$) = ...^{0}
   (40 , 80 , 50 , 25)

5) The multiplicative inverse of 1 is ....
   (1 , -1 , 0 , 2)

6) The simplest form of the expression : (X-2)(X+2) + 4 is ......
   ($X^2 + 4$, $X^2 - 4$, X^2 , 4)

7) $25x^5y^2 \div 5x^2y^2$ = ...
   ($5x^7y^4$, $5x^3$, $5x^3y$, $5x^7$)

8) The mean of the values : 1,2,4,3 and 10 is .... (3 , 4 , 5 , 20)
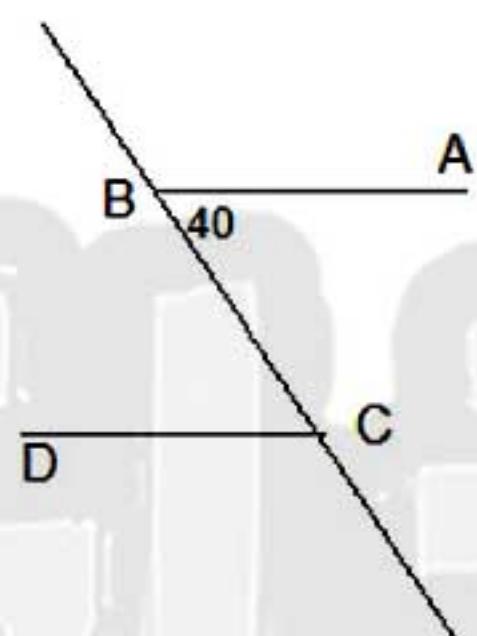
Model (3)

Science

1. Water molecule is consists of ....
   a) one element   b) two elements   c) 3 elements   d) 4 elements

2. In a Chlorine atom $_{17}^{35}CL$ the number of neutrons is ....
   a) 17   b) 18   c) 35   d) 52

3. The simplest pure form of the matter which can't decompose chemically into simpler substance ....
   a) atom   b) compound   c) element   d) molecule

4. The sum of potential and kinetic energies is .....mechanical
   a) motion mechanical   b) Potential   c) element   d) Molecule

5. The mechanical energy is converted to thermal energy through ....
   a) dynamo   b) electrical heater
   c) electrical motor   d) friction between moving bodies

6. From the animals without body support?
   a) octopus   b) mussels   c) hedgehog   d) snake

Maths

1. The sum accumulative angles drawn at one point is ....^{0}
   (180 , 270 , 360 , 540)

2. If $\triangle ABC \equiv \triangle XYZ$, m($\angle A$) = 40^0 , m($\angle B$) = 80^0 , then m($\angle Z$) = ...^{0}
   (40 , 60 , 120 , 140)

3. If the shape ABCD $\equiv$ the shape XYZL , then AD = ...
   (XY , XZ , YL , XL)

4. In the opposite figure :
   $\overrightarrow{AC} \cap \overrightarrow{BD}$ ={A} , m($\angle BAC$) = 40^0 ,then m($\angle CAD$) = ...^{0}
   (50 , 140 , 130 , 120)
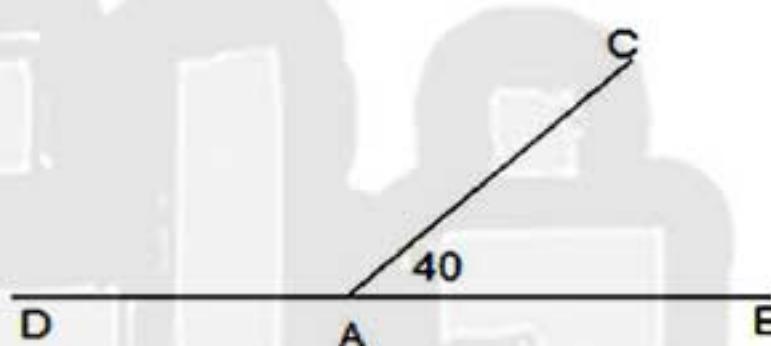
5. If $\frac{x-2}{x+5}$ = 0 ,then x = ...   (-5 , -2 , 2 , 5)

6. The algebraic term XY^2 is of .... Degree   (Second , Third , Fifth , Sixth)

7. The remainder of subtracting 15X from 20X is ....   (2X , 5X , 5 , -5)

8. The mode of the values 4 , 4 , 3 , 2 and 7 is ......   (3 , 4 , 5 , 20)